

Crystal ball questions on Explaining properties of aqueous solutions

All of the following questions have not (as yet!) appeared in the NCEA Level 2 Exams

1) Draw diagrams to represent these solutions.

a Concentrated solution of a strong acid

b Dilute solution of a strong acid

c Concentrated solution of a weak acid

d Dilute solution of a weak acid

2) The following solutions all have a concentration of 0.1 mol L^{-1} , explain, using equations the differing values of pH

Solution	pH
H_2SO_4	1.3
HCl	1.8
CH_3COOH	3.6

3) HCl (hydrochloric acid) is described as a strong acid and H_2CO_3 (carbonic acid) is described as a weak acid. Explain their properties, specifically conductivity and rate of reaction with a piece of magnesium metal.